Figure 1

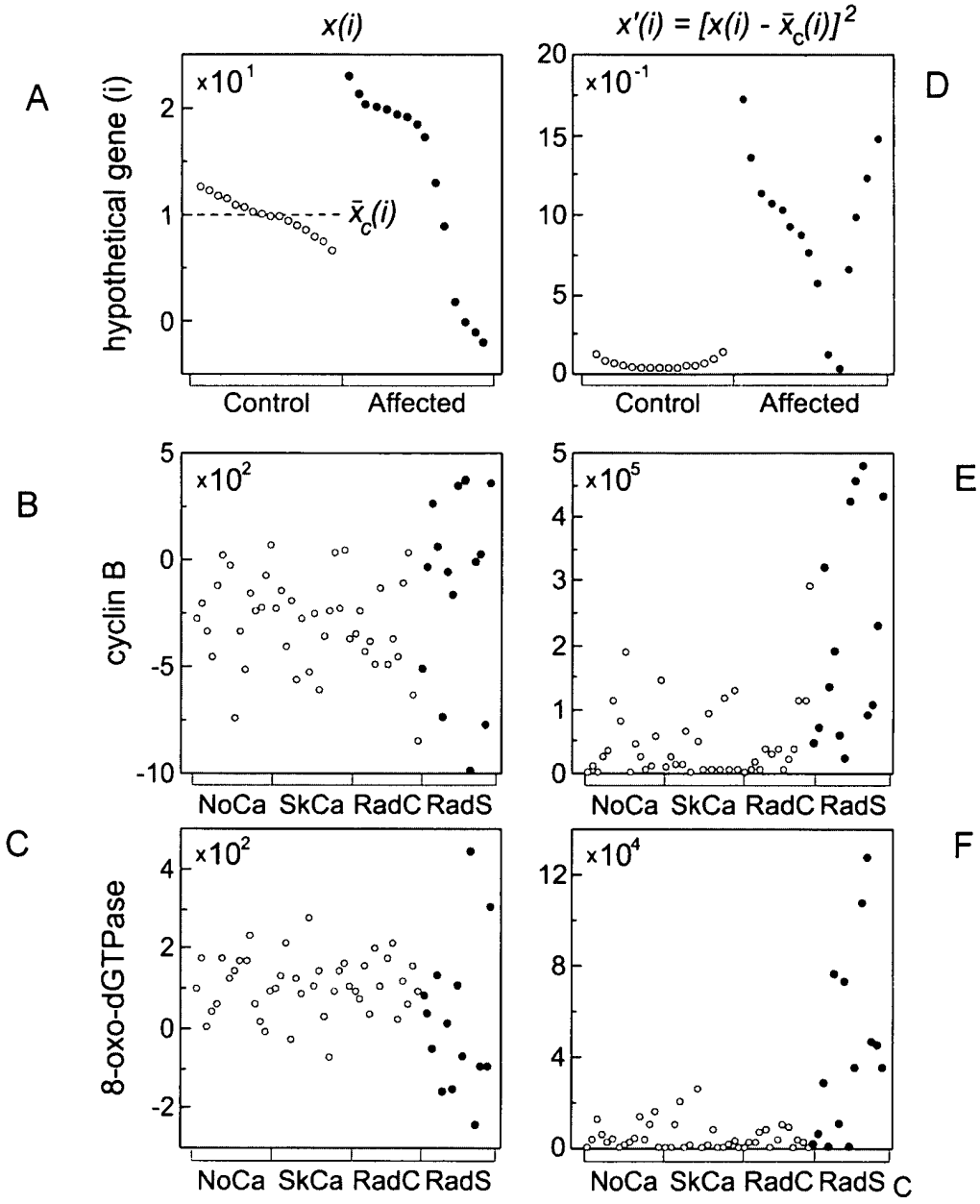

A
B
C
D
E
F
x(i)
x'(i) = [x(i) - x̄c(i)]2
hypothetical gene (i)
cyclin B
8-oxo-dGTPase
x10^1
x10^-1
x10^2
x10^5
x10^4
x̄c(i)
Control
Affected
NoCa SkCa RadC RadS
C

Figure 2

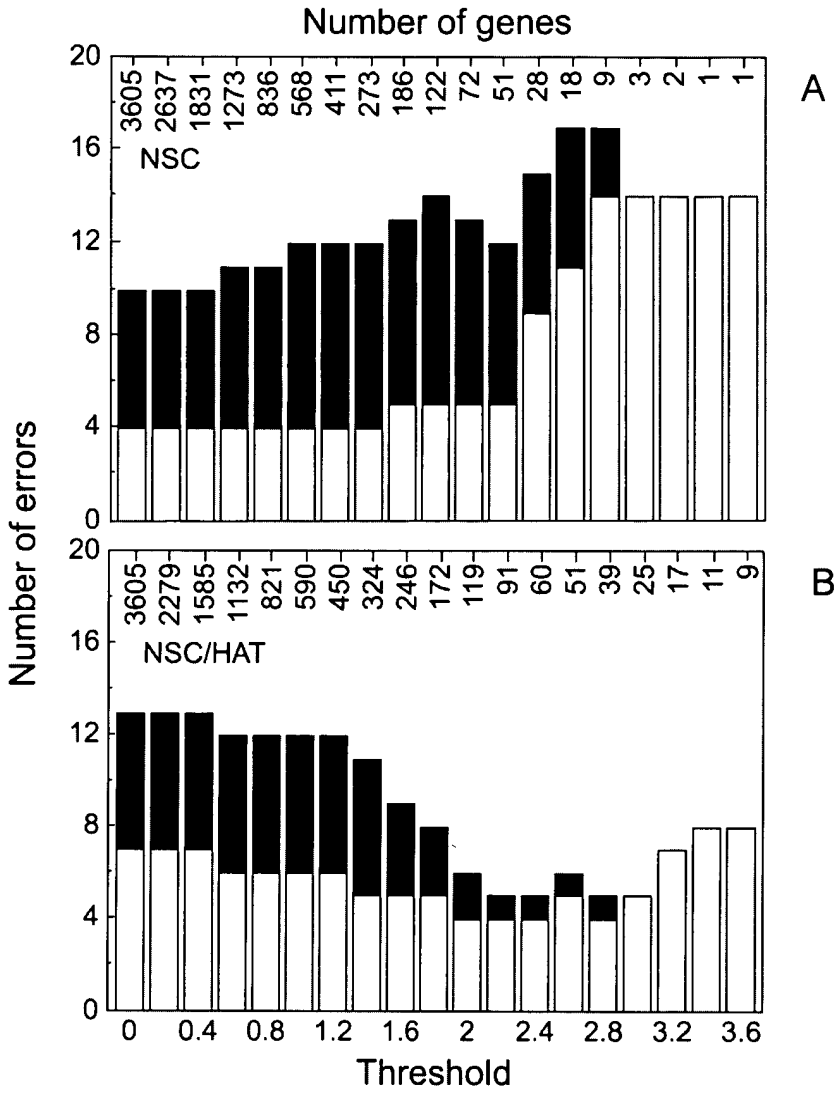
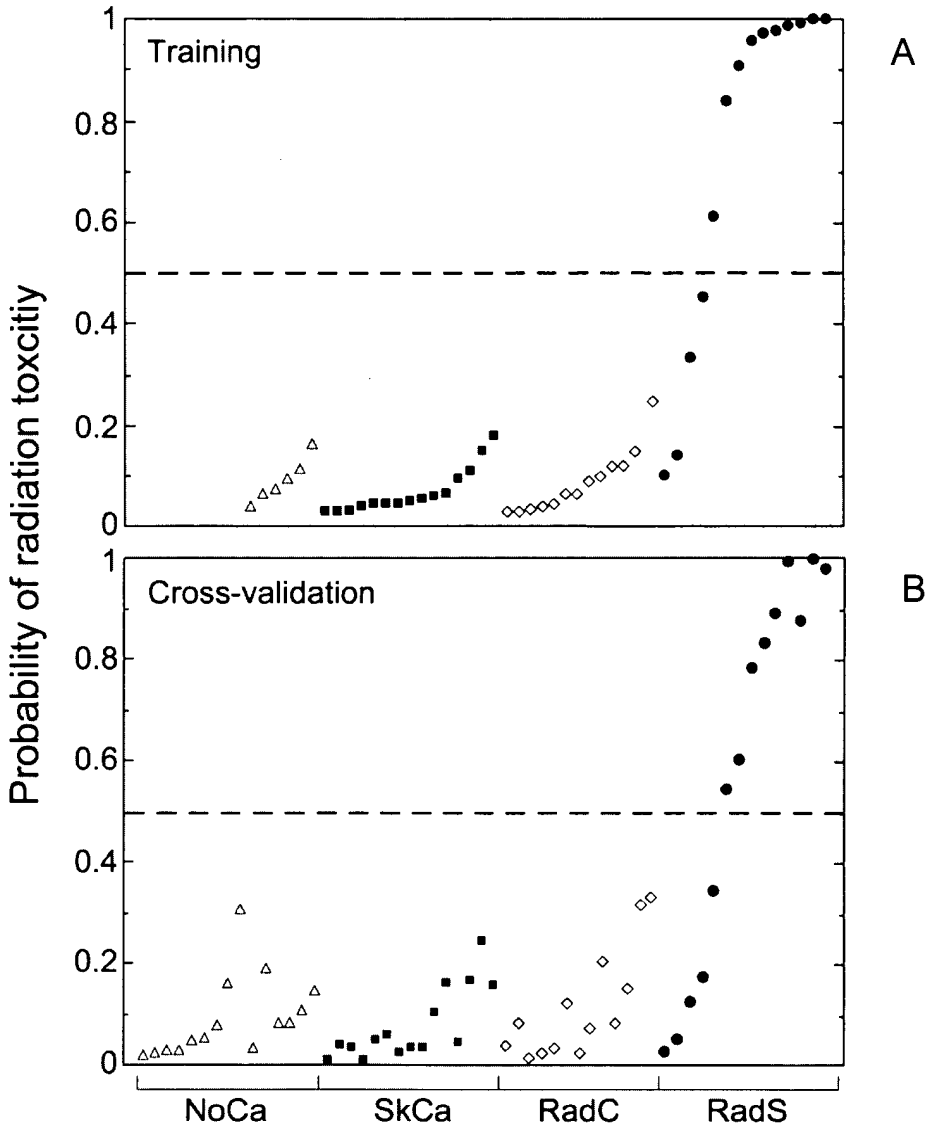
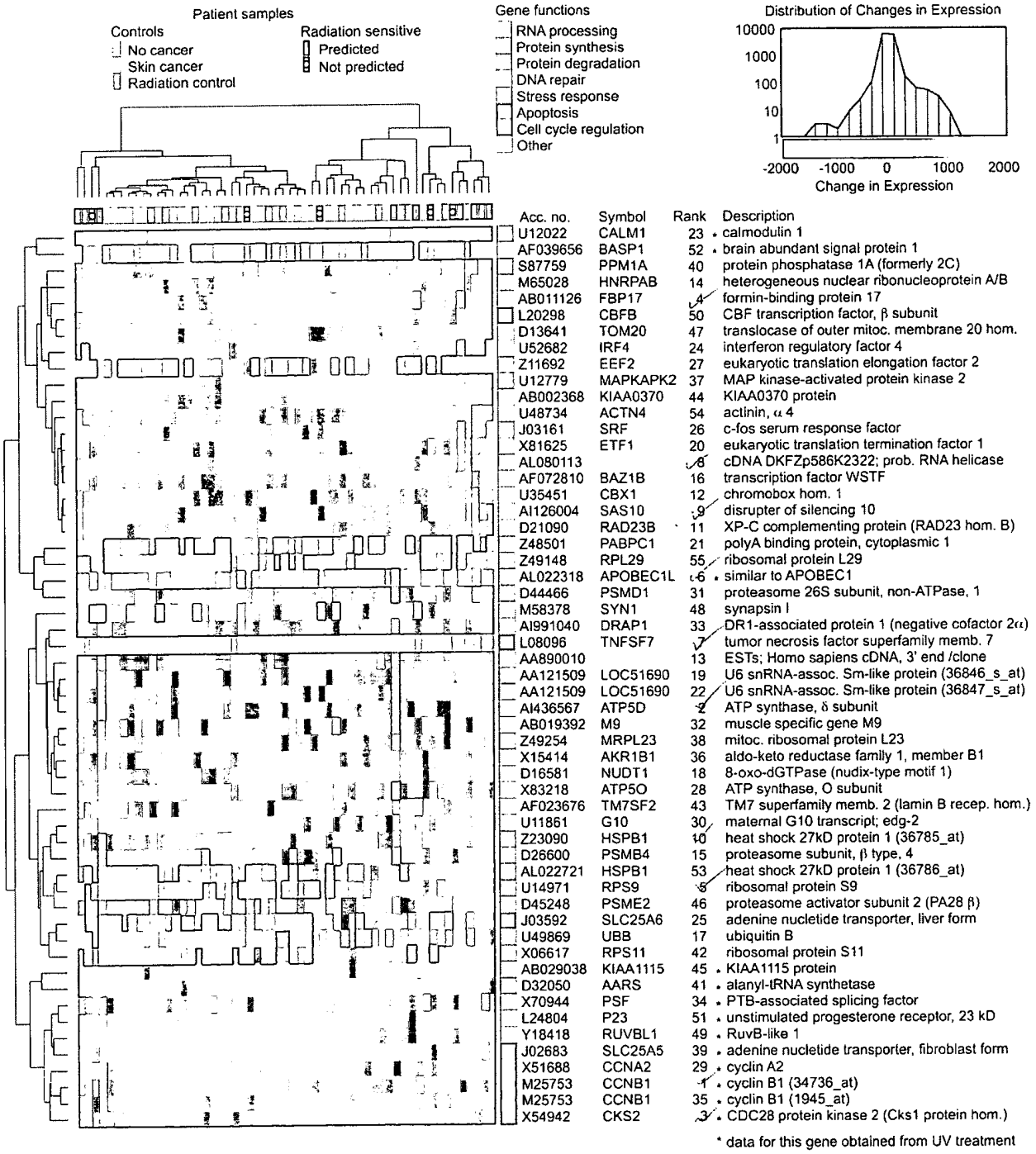

Number of genes
3605 2637 1831 1273 836 568 411 273 186 122 72 51 28 18 9 3 2 1 1
NSC
A
3605 2279 1585 1132 821 590 450 324 246 172 119 91 60 51 39 25 17 11 9
NSC/HAT
B
Number of errors
0 4 8 12 16 20
0 0.4 0.8 1.2 1.6 2 2.4 2.8 3.2 3.6
Threshold

FIGURE 3


Training
A
Cross-validation
B
Probability of radiation toxcitiy
1
0.8
0.6
0.4
0.2
0
NoCa
SkCa
RadC
RadS



Acc. no.	Symbol	Rank	Description
U12022	CALM1	23	calmodulin 1
AF039656	BASP1	52	brain abundant signal protein 1
S87759	PPM1A	40	protein phosphatase 1A (formerly 2C)
M65028	HNRPAB	14	heterogeneous nuclear ribonucleoprotein A/B
AB011126	FBP17	4	formin-binding protein 17
L20298	CBFB	50	CBF transcription factor, β subunit
D13641	TOM20	47	translocase of outer mitoc. membrane 20 hom.
U52682	IRF4	24	interferon regulatory factor 4
Z11692	EEF2	27	eukaryotic translation elongation factor 2
U12779	MAPKAPK2	37	MAP kinase-activated protein kinase 2
AB002368	KIAA0370	44	KIAA0370 protein
U48734	ACTN4	54	actinin, α 4
J03161	SRF	26	c-fos serum response factor
X81625	ETF1	20	eukaryotic translation termination factor 1
AL080113		6	cDNA DKFZp586K2322; prob. RNA helicase
AF072810	BAZ1B	16	transcription factor WSTF
U35451	CBX1	12	chromobox hom. 1
AI126004	SAS10	9	disrupter of silencing 10
D21090	RAD23B	11	XP-C complementing protein (RAD23 hom. B)
Z48501	PABPC1	21	polyA binding protein, cytoplasmic 1
Z49148	RPL29	55	ribosomal protein L29
AL022318	APOBEC1L	6	similar to APOBEC1
D44466	PSMD1	31	proteasome 26S subunit, non-ATPase, 1
M58378	SYN1	48	synapsin I
AI991040	DRAP1	33	DR1-associated protein 1 (negative cofactor 2α)
L08096	TNFSF7	7	tumor necrosis factor superfamily memb. 7
AA890010		13	ESTs; Homo sapiens cDNA, 3' end /clone
AA121509	LOC51690	19	U6 snRNA-assoc. Sm-like protein (36846_s_at)
AA121509	LOC51690	22	U6 snRNA-assoc. Sm-like protein (36847_s_at)
AI436567	ATP5D	2	ATP synthase, δ subunit
AB019392	M9	32	muscle specific gene M9
Z49254	MRPL23	38	mitoc. ribosomal protein L23
X15414	AKR1B1	36	aldo-keto reductase family 1, member B1
D16581	NUDT1	18	8-oxo-dGTPase (nudix-type motif 1)
X83218	ATP5O	28	ATP synthase, O subunit
AF023676	TM7SF2	43	TM7 superfamily memb. 2 (lamin B recep. hom.)
U11861	G10	30	maternal G10 transcript; edg-2
Z23090	HSPB1	10	heat shock 27kD protein 1 (36785_at)
D26600	PSMB4	15	proteasome subunit, β type, 4
AL022721	HSPB1	53	heat shock 27kD protein 1 (36786_at)
U14971	RPS9	5	ribosomal protein S9
D45248	PSME2	46	proteasome activator subunit 2 (PA28 β)
J03592	SLC25A6	25	adenine nucletide transporter, liver form
U49869	UBB	17	ubiquitin B
X06617	RPS11	42	ribosomal protein S11
AB029038	KIAA1115	45	KIAA1115 protein
D32050	AARS	41	alanyl-tRNA synthetase
X70944	PSF	34	PTB-associated splicing factor
L24804	P23	51	unstimulated progesterone receptor, 23 kD
Y18418	RUVBL1	49	RuvB-like 1
J02683	SLC25A5	39	adenine nucletide transporter, fibroblast form
X51688	CCNA2	29	cyclin A2
M25753	CCNB1	1	cyclin B1 (34736_at)
M25753	CCNB1	35	cyclin B1 (1945_at)
X54942	CKS2	3	CDC28 protein kinase 2 (Cks1 protein hom.)

* data for this gene obtained from UV treatment

FIGURE 4